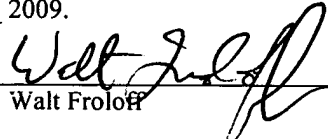




Burk-002US1 - species

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<p>In re application of: Burkhart, Reed</p> <p>Serial No.: 09/847,590</p> <p>Filed: 05/02/01</p> <p><b>Title: System and Method For Automated Negotiation For and Allocation of a Broadcast Satellite, Communication and Caching System Resource</b></p>	<p>Group Art Unit: 2157 Examiner: Nano, Sargon Docket: BURK-002US1 CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the US Postal Service as First Class Mail in a postage-paid envelope addressed to Mail Stop Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January, <u>6</u> 2009.</p> <p>Signed:  Walt Froloff</p>
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RESPONSE TO PTO OFFICE ACTION – Election of Species, MAILED 07/07/08

Commissioner for Patents  
M/S Amendments  
Box 1450  
Alexandria, VA 22313-1450

Dear Examiner Nano:

Thank you for your diligence in this application. In response to the title election of a generic species action, Applicant submits:

- Petition for Extension of Time (5 months) with payment.
- In order to comply with 35 U. S.C. 121, to elect a generic species and it would be deemed unresponsive not to do so, Applicant elects specie I, which includes claims 1-18.
- Applicant requests election with traverse with arguments for traverse included below.

### **Specific Arguments for Traversal of claims 19 - 28**

What follows is a claim-by-claim description of the relationship between Claim 1 and each of Claims 19 to 28, to draw the relationship that they are all of the same invention and should be included with claims 1-18.

#### **Claim 19 is related to Claim 1, hence Claim 19 is related to claim set I (Claims 1-18)**

Claim 19 extends and limits Claim 1 to instances where the non-trunk wireless bandwidth or storage subject to Claim-1-automated-negotiating-and-provisioning is partitioned for sharing using one of the communication-sharing techniques well known in the art of communication – most common of which are frequency-division multiple access (FDMA), time-division multiple access (TDMA) and code-division multiple access (CDMA) – in the context of a communications “neighborhood”. A communication “neighborhood” is a term of art understood to mean an aggregation of communications (such as national or regional distribution of cable television signals by broadcast satellite) which share a distinct communication resource (such as a broadcast satellite) not shared by others, which communications are destined to reception by a community of receivers (such as receive-only satellite ground antennas which capture the cable television signals for reception and relay transmission over local private cable television networks). Because the communication resource is distinct, only those receivers utilizing the distinct communication resource enjoy the privileges of being a member of that particular communication “neighborhood”.

One familiar (familiar to those experienced in the art of cable television distribution) kind of communication “neighborhood” is the cable television distribution “neighborhood” – centered around satellites carrying popular cable television programming. A successful cable television distribution “neighborhood” represents a desirable community to join for either cable television programmers or cable television network operators because of the millions of cable television subscribers reached downstream via a popular cable television distribution satellite.

Programmers wishing to join a cable television distribution “neighborhood” must contract for access to such satellite communication “neighborhood” resources (typically by purchasing or leasing a satellite transponder unit). Cable television network operators wishing to join a cable television distribution “neighborhood” must provision their cable headend/s in such a way that the headends can receive programming from the cable-TV-carrying satellite on which the “neighborhood” is centered, thence relaying those cable-television “channels” to subscribers over the cable television network operators local cable television network/s.

A communication “neighborhood” can also be comprised of an aggregation of cell phone communications of a particular carrier, or other.

In the context of Claim 1, the communication “neighborhood” is expressly of a type that involves non-trunk wireless bandwidth or storage subject to automated negotiation and provisioning, therefore Claim 19 extends and limits the context of that automatically negotiated and provisioned non-trunk wireless bandwidth or storage to communication neighborhoods employing common multiple access sharing techniques for that non-trunk wireless bandwidth or storage.

National cable television distribution systems began establishing cable TV “neighborhoods” in the early 1980’s (neighborhoods which continue to exist today) in which thousands of cable television headends are each outfitted with a satellite receive-only ground antenna pointed at a

national cable television network distribution satellite typically carrying 24 different frequency-modulated national cable television network distribution video signals of approximately 30 to 34 MHz (frequency-modulated bandwidth), each modulated signal typically occupying the vast majority of one of 24 satellite transponders, each of 36 MHz nominal usable bandwidth (reference: [http://findarticles.com/p/articles/mi\\_m0EIN/is\\_1999\\_August\\_2/ai\\_55322192](http://findarticles.com/p/articles/mi_m0EIN/is_1999_August_2/ai_55322192) ). Millions upon millions of cable television subscribers in the United States and worldwide receive the majority of their cable television programming from just such arrangements of cable television programmers and cable television system operators in cable television “neighborhoods.”

Also, many millions of cell phone subscribers in the United States and worldwide are connected to telephone networks via cellular service provider “neighborhoods” (outside of which, cell users mobile terminals are typically not fully functional, and often not even minimally functional).

**Claim 20 is related to Claim 1, hence Claim 20 is related to claim set I (Claims 1-18)**

Claim 20 extends and limits Claim 1 to instances where the automated negotiating and provisioning of Claim 1 is architected to “maximize some objective.” A common objective that is maximized by business is revenue or profit, so one example Claim-1-automation (in the further context of Claim 20) would be to accept a request for transmission only whenever the ratio of price to resource was maximal. If User A requests resource R1 with an offer of \$1.00 and User B requests the same resource R1 but at an offer of \$1.25, then User B’s offer gets provisioned over User A’s offer (in this simplistic scenario).

Alternative objectives for maximization could be diversity of programming, educational value, or other content-subjective metric. It is anticipated that a variety of maximization objectives will be explored in the new media distribution provisioning architecture envisioned in the context of the present patent application.

**Claim 21 is related to Claim 1, hence Claim 21 is related to claim set I (Claims 1-18)**

Claim 21 extends and limits Claim 1 to instances where the automated negotiating and provisioning of Claim 1 is done in the context of an auction. Auctions are used as the mechanism for a large and growing number of commercial transactions, but are not historically used in the context of the automated negotiation for and provisioning of non-trunk wireless bandwidth or storage resources. Historically, satellite transmission bandwidth (as one example of non-trunk wireless bandwidth or storage) is provisioned by long-term lease, manually (without provisioning automation of any type). Historically, storage is provisioned by outright purchase, manually (without provisioning automation of any type).

**Claim 22 is related to Claim 1, hence Claim 22 is related to claim set I (Claims 1-18)**

Claim 22 extends and limits Claim 1 to instances where the automated negotiating and provisioning of Claim 1 is done in the context of “options.” Option is a well known term of art in contract law and finance which denotes securing a right to a transaction. Considering Claim 1 in the context of a simple non-trunk bandwidth reservation scheme, typical reservation scenarios that might occur may be handled through automating the issuance of options for the non-trunk bandwidth. Options to non-trunk bandwidth permit rendering intermediate (partial) commitment levels between non-commitment and full-commitment. Options represent an important (manual) transactional functionality that may be most familiar to the layman in examples such as in the buying of stock options or making reservation for a trip (for example for a cruise vacation) – the

options or reservation (rights) secured for a price, and typically forfeited at some date unless further commitments are subsequently made.

**Claim 23 is related to Claim 1, hence Claim 23 is related to claim set I (Claims 1-18)**

Claim 23 extends and limits Claim 1 to instances where the automated negotiating of Claim 1 is done in the context of temporal limitations of offers to the automated negotiating and provisioning system. Again, considering Claim 1 in the context of a simple non-trunk bandwidth reservation scheme, typical reservation scenarios that might occur may involve temporal limitations (such as options expirations). As discussed in the above section discussing how Claim 22 is related to claim set I, options may have any expiry date of forfeiture; thus Claim 23 provides an extension and limitation of Claim 1 to account for temporal limits that may be useful to effect certain practical scenarios of implementation of the present invention.

**Claim 24 is related to Claim 1, hence Claim 24 is related to claim set I (Claims 1-18)**

Claim 24 extends and limits Claim 1 to instances where the automated provisioning of Claim 1 is done in the context of temporal limitations of offers to the automated negotiating and provisioning system. Again, considering Claim 1 in the context of a simple non-trunk bandwidth reservation scheme, typical reservation scenarios that might occur may involve temporal limitations (such as dates and times for transmission of live events); thus Claim 24 provides an extension and limitation of Claim 1 to account for temporal aspects of provisioning that may be useful to effect certain practical scenarios of implementation of the present invention.

**Claim 25 is related to Claim 1, hence Claim 25 is related to claim set I (Claims 1-18)**

Claim 25 extends and limits Claim 1 to instances where the automated negotiating and provisioning of Claim 1 is done in composite context involving one or more elements and/or one or more iterated stages (steps or phases) of negotiating. A simple example would be the auction of an option for a certain type of terrestrial non-trunk wireless bandwidth or storage from 12:00 GMT to 13:00 GMT, 22 December 2012. Thus, Claim 25 provides an extension and limitation of Claim 1 to account for more involved provisioning scenarios that may be useful to effect certain practical implementations of the present invention.

**Claim 26 is related to Claim 1, hence Claim 26 is related to claim set I (Claims 1-18)**

Claim 26 extends and limits Claim 1 to instances where the automated negotiating and provisioning of Claim 1 includes information based on information from viewers or other content recipients. A simple example would be the revenue-share auction provisioning of satellite video-on-demand entertainment non-trunk wireless bandwidth or storage, in which both a proxy for (or direct input regarding) the number of anticipated viewers of a particular programmer's programmatic content is multiplied by share-portion to determine an auction winner. Thus, Claim 26 provides an extension and limitation of Claim 1 to permit more involved functionalities that take into account information from content recipients – which more involved functionalities may be useful to effect certain practical implementations of the present invention.

**Claim 27 is related to Claim 1, hence Claim 27 is related to claim set I (Claims 1-18)**

Claim 27 extends and limits Claim 1 to instances where the automated negotiating and provisioning of Claim 1 includes information based on graphical-user-interface-generated (GUI-generated) information, and/or where a software agent is authorized and programmed to negotiate

on behalf of an entity. A simple example where both a GUI and a software agent would be important in the automating negotiating and provisioning of non-trunk wireless bandwidth or storage would be in a rolling-window reservation scenario of video-capable share of a non-trunk wireless digital multiplex; for example with a scenario in which auction for next Tuesday's 12:00 GMT to 13:00 GMT multiplex capacity is conducted this Tuesday between 12:00 GMT and 12:01 GMT, with a threshold bid level based on a historical rolling average of previous winning bids, and a bid iteration limit of two. In this instance, an entity interested in using such multiplex capacity may wish to preset some guidance for bidding for that capacity based on historical prices (some of which may not be available until close to the time of bid), preferred bid limits or other; so that an automated software agent may execute authorized bidding elections concordant with the guidance provided via GUI. Thus, Claim 27 provides an extension and limitation of Claim 1 to permit more involved functionalities leveraging GUIs and software agents by those making bids in the negotiation for non-trunk wireless bandwidth or storage – which more involved functionalities may be useful to effect certain practical implementations of the present invention.

**Claim 28 is related to Claim 1, hence Claim 28 is related to claim set I (Claims 1-18)**

Claim 28 extends and limits Claim 1 to instances where the automated negotiating and provisioning of Claim 1 is performed in the context of an explicit contract that may be negotiated once in person – so permitting subsequent automated negotiation between software agents on each side with a more extensive legal agreement to the ground rules for the relationship between those offering the automated negotiating and provisioning of non-trunk wireless bandwidth or storage and those negotiating for the provisioning of non-trunk wireless bandwidth or storage. Contracts are a well known formality of business that are more and more commonplace for evermore transactions, typically specifying identities of the parties, agreed scope of (and limitations to) rights and responsibilities of each party, recourse, indemnifications, guarantees, applicable law, etc. Thus, Claim 28 provides an extension and limitation of Claim 1 to permit the automated negotiating and provisioning of non-trunk wireless bandwidth or storage to occur within a firmer legal context – which more involved functionalities may be useful to effect certain practical implementations of the present invention.

**General Arguments for Traversal of claims 19 - 28**

From the arguments above reviewing one-by-one how each of the claims of claim set II (i.e., Claims 19 to 28) is related to Claim 1 and hence related to claim set I. The claims are disclosed as capable of use together, with each claim from claim set II providing an extension to and/or limitation of Claim 1 to a more particular – but coincident – design, mode of operation, and effect – as opposed to different designs, modes of operation, and effects.

Consequently, we respectfully disagree with Examiner's assertion that Claims 19-28 are and independent invention. It is our opinion that as the species II claims do not necessarily have a separate status classification, would require a similar search for prior art and are likely to raise similar prior art issues, they should be included in this patent application.

However, having said that, we would readily agree with the Examiner that – like many inventions dealing with communication, computers and storage – the present invention crosses multiple class boundaries. However, the present invention does this in matter out of the ordinary, for many issued patents today indicate association with several classes. It is little surprise that the present invention was deemed by the Examiner to have association with two different classes, as the innovativeness of the present invention, itself, arises from leveraging key attributes of

technologies arising in different classes: communication employing non-trunk wireless bandwidth, distributed storage and computer-mediated negotiation and provisioning automation.


With all due respect to the examiner, we submit that Claims 20 to 28 as predominantly associated with USPTO class 709 and 370 peripherally, as these claims pertain primarily to the automated negotiating and provisioning aspect of the present invention – notwithstanding that the automated negotiating and provisioning are of non-trunk wireless bandwidth or storage, which means that (as dependents of Claim 1) few embodiments of Claims 20 to 28 do enter the context of class 370 (and perhaps a few other classes such as some of those dealing with storage, such as class 707), but not as strongly as class 709 which covers most of the species I group claims. Applicant requests via traverse that claim set I include all claims of claim set II as amended (i.e., with Claim 19 amended to depend on claim 1, as all of species II claims) – according to the arguments above that claim set I and claim set II are not unrelated, and are just one invention indeed.

According to the class-crossing nature of the present invention, we believe that the present invention can be adequately searched or examined without inordinate searching of multiple classes, as is in fact a commonplace requirement for class-crossing inventions such as the present invention.

Argument has been made that the present invention is not two, but one indeed because all claims in claim set II are related to Claim 1 in such a manner as to extend and limit Claim 1. Any of the claims in claim set II may not otherwise of themselves appear to be patentable innovations, without their root (as dependent claims to Claim 1) in the novel Claim 1. The evidence herein and the evidence of record (especially including that evidence describing the property inherent to Claim 1 in which the automatic provisioning of non-trunk wireless bandwidth and storage provides a much lower cost alternative network for distributed media dissemination) shows the invention to be a single one with many facets in the claims that extend and limit the invention, but which do not extend it beyond a direct reliance on Claim 1.

If any matters can be resolved by email or telephone, please contact me at the email address or telephone number listed below.

Respectfully submitted,

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